112140

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

CROSSLEY FARM SUPERFUND SITE
PROPOSED REMEDIAL ACTION PLAN OU-1

PUBLIC MEETING
AT THE WASHINGTON ELEMENTARY SCHOOL
1406 ROUTE 100, BARTO, PENNSYLVANIA
WEDNESDAY, MARCH 5, 1997, 7:00 P.M.

LARRY BROWN	COMMUNITY INVOLVEMENT COORDINATOR U.S. EPA, REGION III
ROY SHROCK	REMEDIAL PROJECT MANAGER U.S. EPA, REGION III
KEVIN KILMARTEN	PROJECT MANAGER HALLIBURTON NUS CORPORATION

ALSO PRESENT:

BERNICE PASQUINI	HYDROGEOLOGIST U.S. EPA, REGION III
NANCY RIOS JAFOLLA	TOXICOLOGIST U.S. EPA, REGION III
JACK KELLY	AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR)

MONICK VIDEO & COURT REPORTERS
d.b.a. MONICK COURT REPORTERS, INC.
406 Augusta Drive, E.
Sinking Spring, PA 19608
Phone: 610/927-1310
Fax: 610/927-1311

Reported by: Merriann Hughes

INDEX

MR. BROWN: Good evening, my name is Larry Brown, and I am the Community Involvement Coordinator from the Environmental Protection Agency. This evening I'd like to welcome you here, first of all, and thank you for coming out. This meeting is for the Proposed Remedial Action Plan for the cleanup of Crossley Farm, and we'll get into that. But before we do, I just wanted to go through a few administrative notes for you.

First of all, if you didn't sign in, on your way out, could you please sign in. We use these sign-in sheets to develop mailing lists so that we make sure that we get information out to you in a timely manner. Also, if you didn't get a copy of the facts sheets that went out, I think, last week, we have some more there. We also have copies of the Proposed Remedial Action Plan on the table.

Now, there is a stenographer here this evening, and this meeting will be recorded. The notes will go into the two repositories. One is at the Hereford Township Building, and the other one is at the Washington Township Building. So that will go in the record, the administrative record. Everything that goes on about the site, there are two administrative records. So if you would like to find out more, you're welcome to go to either one.

So, again, I'd like to thank you for coming. As

you have questions, we are going to ask you to state your name so we can get it in the record. It's not so we can come back to find out who you are or anything, but in case you do have a question that we can't answer here or anything like that, it does help us.

So at this time, I'd like to turn it over to Roy Schrock. He's the Remedial Project Manager for this site.

MR. SCHROCK: Again, my name is Roy Schrock. I'm the Remedial Project Manager for this Site.

CITIZEN: Could you turn up the mike?

MR. SCHROCK: It's not working? Does that help a little bit?

Again, my name is Roy Schrock. I'm the Remedial Project Manager for this site. What we're doing currently, is beginning a Remedial Investigation, which means we're looking at all the soil, the ground water, the streams, the sediments, and trying to figure out where contamination exists at this site and what we can do about it.

The most recent activity started-- and basically most of you are probably aware of the residential well sampling that we did back in November and December of 1995. We went around to about a 104 homes, or a 104 homes and springs in the area along Huffs Church, Dale Road, Forgedale Road, and Dairy Lane. Now, there may be a few other homes that we had checked or springs that we had

looked at, but we got the results back from the December 1995 sampling, and we mailed out some copies of those to all the residents from which we took samples back in June of 1996.

So that's probably the most important activity that's happened since we began the study. And the thing that's unusual about this particular Superfund site, is that the ground water is actually traveling in the fractured bedrock, and what it means to you homeowners is that you may have a home with a well, let's say, a hundred feet deep. Your neighbor may have a well at 60 feet deep. And one well might be contaminated, and the next one might not. There is no clear pattern yet based on just where you live on Dale Road as to if you're not, your well is contaminated. So that's why we decided we had to check all the homes in the area and to begin to try and get a picture of what it is we're dealing with in terms of contaminants and individual homeowners.

The next part of this study, which we're just about to begin, is going to be looking at the entire area, looking at the regional ground water patterns, again, going back to the surface water and streams, sediments, and the springs, in particular, are really critical to our entire investigation.

Now, one of the things I wanted to just mention to

you is that we did bring some other EPA people here and some of the people who are working with EPA to do the studies at this site. Our hydrogeologist Bernice Pasquini is here, our toxicologist Nancy Rios Jafolla is here, and a representative from the-- I call them the ATSDR what is that?

MR. KELLY: The Agency for Toxic Substances and Disease Registry. I'm Jack Kelly.

MR. SCHROCK: Jack Kelly is from the Agency for Toxic Disease and Substance Registry.

MR. KELLY: That's close enough.

MR. SCHROCK: All right. And some of you may remember back in 1993 that Agency came out and took notes on some of the people who have been living with contaminated wells for quite some time, and they are, in fact, part of the National Registry to look and see what are the long-term affects of any exposure to some of the chemicals that we have at this site.

Now, the main purpose for this meeting is to go over what I call a Proposed Plan, and I am going to get to that in just a minute. But before we go further, I wanted to introduce Kevin Kilmarten who's up here with me, and I wanted to get him to do a five-minute summary of what is the investigation that we're about to undertake, and what are we going to be looking at, because many of you in your

homes and properties are going to be involved in this study. So I want to go through that, and then we'll get to the Proposed Plan where we'll actually discuss some of the alternatives you may have already had a chance to look at. Okay, Kevin.

MR. KILMARTEN: Good evening. I'm Kevin Kilmarten with Halliburton NUS Corporation. I've probably spoken to just about all of you on the phone at one time or another. It's nice to get a chance to meet you. As Roy mentioned, we're in the midst right now of what's called the Remedial Investigation (RI). We're doing studies both at the site and in the surrounding area in trying to learn more about the hydrogeology of the area, how the ground water's flowing, how the contaminants are reacting with the ground water, and moving through the area, and how that, ultimately, is affecting you.

We've started the RI activities, as Roy mentioned, with the sampling of the all of the home wells in the area, and we've been quite active recently. We did a surface geophysics study, that many of you were kind enough to give us access to your property, so we could walk along your property and take some measurements with some of our geophysical instruments. What we were doing there is basically looking for fractures or breaks in the earth's crust, in the bedrock, which are these preferred avenues

for the ground water movement and the contaminant migration.

We also recently completed a soil gas study where we actually put probes in the ground and withdraw samples of soil gas and analyze those for chemical compounds, and that gives us clues as to what the composition of the soil is, if there maybe has been any disposal of materials in that area, and sometimes even it can give us a clue as to what the composition of the ground water is.

Both of those studies are complete. We have the results, and we're right now looking at them and interpreting them and working with Bernice and EPA in interpreting just what those results are telling us.

We were also in the-- fairly recently. We took a first round of surface water and sediment samples, where we went out and sampled many of the streams and springs in the area to determine what is the impact of this site on the surface water, on the streams, in the area here. We've recently gotten those results back, and we're actively interpreting those. And we also did a round of sampling of all the monitoring wells in the area. I know many of you have monitoring wells on your property, and again, were kind enough to let us have access to those wells and grab some samples.

Where we are right now and what we're planning to

do is we'll very soon be taking a second round of stream surface water and sediment sampling for the streams, and again, I'll be calling many of you in the next few weeks again asking permission to walk across your property to get to a creek or a stream or a spring so we can get a sample there. We'll be doing some additional home well sampling, and I'll be calling you soon to try to make arrangements to have permission to sample your wells and arrange a time that we might come by.

As far as the site-- investigations up on the site, we'll be doing some soil borings, which are basically auger holes, where we sample the soils down to a specified depth and grab the soil samples and analyze them. And we'll also be doing some test pitting activities, where we have suspicions of past activities and where we need to know a little bit more about what's going on in the subsurface. We'll have a backhoe out there, and we'll actually be doing test pits so we can see what's there and also grab samples for analysis from those pits.

Probably the biggest part of the investigation is yet to come, and that's installing additional monitoring wells. Right now we have 33 more wells planned that we'd like to install. As Roy mentioned, in this site, the water is traveling within fractures in the bedrock. It's an extremely complicated hydrogeologic system, and what we

need to do is learn more about it to determine just where the contamination has spread, both laterally, say-- you know in a horizontal sense, but also vertically: Where is the contamination near the surface, and where has it gotten down to great depths below the surface?

These are questions that really at this point we have some hunches and some general information on, but for the most part, we don't really know yet. And the only way we'll ever find that out is to install these test wells to be able to take samples and to figure out just how is the ground water flowing, and where is the contamination, and where is it headed?

Many of these wells-- if you look on the middle poster there-- you can come up after the meeting and take a closer look-- that's showing in the red triangles where some of these additional well clusters are planned. They're not in specific places right now, they're just in general ballpark areas, and as you can see many of them are on-site, but also many of them are also going to be off-site just by, again, the nature of the hydrogeology. We have to go off-site to try to determine, again, how the ground water is flowing.

I've spoken to some of you in the past week or two regarding, you know, EPA's plan to install these wells and asking permission from you to install these wells on your

property. And again, I will be speaking on behalf of EPA to some of you in the near future for the same reason, to ask permission to install these wells.

And as far as the timing goes, as I said the investigation is ongoing. The well drilling, the monitoring well drilling, we hope to start in about a month. We're shooting for about mid-April, and we think it will be probably between about four to six weeks to complete that investigation, after which we will be taking samples and analyzing all that data. That basically sums up the Remedial Investigation.

What I would like to do is just take the opportunity right now to introduce one person. He's the gentleman over here in the blue sweater. His name is Robert Good. He's the Field Investigation Leader for the entire study. I know many of you have met him before. He was the gentleman that came by and sampled your home wells, and he'll be out here doing the bulk of these investigations.

MR. SCHROCK: Thank you. One thing I just wanted to make a comment on, the whole activity of drilling wells up on that mountain is really going to be a very difficult task. I know he's estimated four to six weeks, but I've seen drillers at work up in this area, and it can be a rather difficult thing to do. They plan to put in wells in

clusters, in groups of three, at shallow depths, a mid-level, and then a deeper one, and then even some locations go down to 500 feet. So it's going to be quite an undertaking, and I think they'll need some help just getting through all that kind of activity.

Okay. The main focus of this meeting is to go over what I call EPA's Proposed Plan, and the purpose of this is to actually get comments from the public. It's been out in some of the township offices for a couple of weeks, and I have spoken to several of you on occasion about this, and I have actually received some comments. And what I'd like to do is to sort of go through this a little bit to try and bring out some ideas that you maybe wanted to bring up in the questions and answers.

It's not a formal meeting. If I'm going through something and you want to stop and ask a question, feel free, but if you want to wait until I'm through, that's okay too, or if you want to wait until we've actually closed the meeting and then ask individually from any of the parties up here, that will be all right, too. Okay. I guess the most important thing to me is that we do have a structured comment period, which is supposedly going to end on March 12th. And at this time that's what I'm planning, and that's what I expect will happen.

Following that, I am going to have to prepare

another document called a Record of Decision which summarizes which one we really picked, according to the Agency. My managers are the final decisions makers, and it would also be a response to all of the comments that have been received from the public, including the transcript of this meeting, and things that we need to answer from the questions asked at this meeting. But I think one of the first things I want to talk about, before I get into the individual alternatives, is some of the background of this site.

Now, at this time, we don't have a specific location. We don't have a specific place that anything was really dumped. All right. Our belief is that a chemical known as trichloroethylene, which is a solvent used as an industrial degreaser-- basically cleaning off equipment-- type of a solvent-- that would be used, and then after it's dirty, then discarded.

Our belief is that at some point in the past, approximately late 1960s early 1970s, the Bally Case and Cooler used those kinds of materials and ultimately disposed of them. We have some idea that maybe a transporter who picked up some drums from the facility, Bally Case and Cooler, before it became Bally Engineer Structures, and took them up to the Farm and possibly other locations in this area. But, again, we don't have hard

evidence as to where it is and exactly who it came from. These are the stories that we've been told, by not only the people who live around here, but down through the years, I've heard it from a number of different sources.

CITIZEN: If that's the case, then why did you identify it as the Crossley Farm Site if you've got no proof that anything was put there?

MR. SCHROCK: All right. We have monitoring wells on the property back from the 1986 work we did up there. That, basically, showed contaminants from each of those monitoring wells, and based on what we know of the hydrogeology, it appears to start somewhere up on top of Blackhead Hill.

CITIZEN: But you have no proof that that's the site?

MR. SCHROCK: That's where we're going after to look right now.

CITIZEN: But you have no proof.

MR. SCHROCK: I know that we have ground water that's contaminated. I know enough about the ground water flow patterns to say it started somewhere from that area.

CITIZEN: Well, my question was, why did you identify the site with a specific individual's name?

MR. SCHROCK: That is part of the process EPA went through when they identified sites and put them on the

National Priorities List.

CITIZEN: You think that's fair?

MR. SCHROCK: Well, this site is also known as the Hereford Ground Water Contamination Site.

CITIZEN: Then it should have been put that, and the person's name should not have been put on the document.

MR. SCHROCK: Well, I'll be honest with you, I actually agree with you, and that's what I was leading up to here. I don't think we can specifically blame a particular person for any of this problem at this time. In fact, I don't think we can blame anybody, because that was pretty much a normal practice back in those days. We only have the evidence that we believe the ground water flow begins from there and it spreads outward.

But you're absolutely right, I truly do not think it's fair to single out one specific person and one specific name to be associated with this site.

CITIZEN: But I think, personally, it should be documented that all future documentation relative to this dilemma should have the Crossley named stricken off of it.

MR. SCHROCK: Okay.

CITIZEN: Anything less than that would be unacceptable.

MR. SCHROCK: Okay. I don't disagree, but I'm going to have to go back and you know there is a process to

quote change the name of the this site. I've tried my best to specifically down play any responsibility and that name, when I can, but again, the name on that National Priorities List does say Crossley Farm, even though ground water--Hereford Ground Water is another name that we've used for this site.

But again, that was sort of the point I was trying to lead to. I don't think we can specifically blame anybody or any individuals for this problem. We do have something that we need to find. If we can find where it's coming from and if we can take out anything that may be creating this ongoing problem, that's one part of the study.

The second part, which is the main focus of this meeting, is to try and provide acceptable treatment for the homeowners who are affected by this problem so that they can continue to live in their homes and not fear any contamination that's existing in ground water.

CITIZEN: Do you have any idea what the length of time is that you're talking about cleaning this up?

MR. SCHROCK: Okay. This particular Proposed Plan is called a interim remedy, which means I'm not finished doing my study yet. What I've costed out in this particular plan is five years of actually maintaining these point-of-entry treatment systems. So I'm basically looking

about two to three years, before EPA would come up with a final action as to how we're going to clean up this site.

In terms of how long it would take to actually do the clean-up, I couldn't honestly tell you that right now. I can tell you some things in terms of the history of the site. We have known of the contamination for almost 15 years, and what we have seen is that the concentrations, even in some of the further areas, have pretty much remained stable. We are not seeing in most of the homes any fluctuation up or down.

Now, some do and I won't deny that. You may be one of those people who's seen a trend going up or down, but, in reality, we've got something here that seems to be sticking with us for a long time. So I do not have a good answer now to say how long it might take. If we can find a particular spot where some of it may be able to be cleaned up, we'll be lucky.

Okay. This trichloroethylene, or the TCE, is actually heavier than water. So what we're finding is that it's sinking down into the bedrock, and it's probably laying in puddles on different locations throughout the mountainside. So when these guys are going to start this drilling program to put in monitoring wells, the possibility for them to find one of these spots where the concentration's so high we should pump it out immediately

and get rid that it, I can only hope for that. But it will be around for a long time, which is why this is only an interim remedy.

We need to do something immediately for homeowners who are affected and those who have the potential to be affected in the future, and we need to complete the study to see if there's a way we can get through a long-term clean-up program.

CITIZEN: What are the health risks from drinking this water? We've been drinking this water, especially the children.

MR. SCHROCK: Nancy, this is a health risk question. Do you want to try and answer that?

MS. JAFOLLA: It varies from residential well to residential well at this point. So I couldn't tell you what they are for all of the wells but for each well where, in general, I believe it does range from 1 x 10 -3 to 1 x 10 -6.

MR. SCHROCK: Can you hear her?

MS. JAFOLLA: Okay. In general, the risks-- I can't tell you what the risks were for each of the wells at this point. They all vary but maybe after the meeting--

MR. SCHROCK: What we have in the Focus Feasibility Study is some of the risk numbers for each of the wells. And I think what's important is that everybody's well is

different. But in terms of the general risks, trichloroethylene is a cancer-causing agent. So that's one of our primary concerns with this substance.

This substance also has effects that are noncancer-causing but causes other health problems. So that's why we feel it's very important to do something about the wells that are contaminated or have potential.

MS. JAFOLLA: Now, in those risks for your individuals wells, I can discuss with you on a one-on-one basis. In general, they range between 1 x 10 -3 and 1 x 10 -6. Of course, children are a sensitive population, so if your well had a contaminant level of above what we call "the removal levels," which I believe is 160 parts per billion for trichloroethylene, which is the main contaminant at this particular site, then you have already received a treatment system for that particular well.

If your levels fall below that, you have not received a treatment system. The risk levels are not expected to be below-- above those risks that are acceptable by the EPA-- the EPA accommodates, but they will be considered during this interim action. In fact, Roy will continue to talk about this and any of the wells where we had any tests at all, will be receiving a treatment system. So those risks will be minimal for any child who is exposed.

MR. SCHROCK: Okay. Back there.

CITIZEN: I remember reading in the EPA documents that you have not proved that the levels that you found are detrimental to human health, by your own document's admission.

MR. SCHROCK: Well, EPA has set certain standards for any public drinking water supply, which is basically the levels about which I'm very concerned, and that is the 5 parts per billion for trichloroethylene. As far as our remedy is concerned, anything that is above 5 parts per trillion does-- 5 parts per billion, excuse me-- does require some kind of treatment under EPA's responsibility for this site. In terms of what actually causes cancer and what doesn't cause cancer, I'm not the person who does that kind of research. I follow the regulations that currently exist.

MS. JAFOLLA: I think what that document says is that the toxic effects of trichloroethylene are currently being reviewed by the Agency. We're not necessarily saying that it's not toxic. We're just saying that we're not sure how toxic it is and that it could be less toxic than we think it is. The reviews should be coming in shortly. Within the next year we should have more data on that. However, currently what we need to go by is the MCL, the Maximum Contaminant Level, which is something that might

would lead--

MR. SCHROCK: The Maximum Contaminant Levels are pretty much the trigger at which the EPA decides they've got to do an action.

MS. JAFOLLA: It's an action level, and so that still stands no matter what the EPA-- what these studies are coming-- going to come up with.

CITIZEN: So basically, at the moment, you don't have any proof of anything?

MR. SCHROCK: No, we still--

MS. JAFOLLA: We still have a Maximum Contaminant Level we need to abide by.

CITIZEN: Which is?

MS. JAFOLLA: Which is 5 parts per billion of TCE.

CITIZEN: Per billion?

MS. JAFOLLA: 5 parts per billion of TCE.

CITIZEN: What was the 160 you mentioned?

MS. JAFOLLA: The 160 is our reviewable action number, and that's a risk-based concentration. It's purely based on risks. It's not an MCL, which is based on other factors, such as the feasibility of cleaning it up.

MR. SCHROCK: That's an important thing, because Nancy just mentioned that the risk range on your question was what she said, 10 -3 or 10 -7 or even higher numbers.

MS. JAFOLLA: Most wells were within the risk

range. There were only three blocks, and I think you know who you are, where there was a problem, and for those wells, the risk level could have been below-- greater than 1 x 10 -4, 1 x 10 -3.

MR. SCHROCK: But 10 -3, what that means is a chance that there is an excess cancer above what normally occurs in this country of one in a thousand. Am I right? 10 to the minus--

MS. JAFOLLA: Of one in three or one in four actually. Your background risk is--

MR. SCHROCK: Now, 10 -4 means there is a chance for one cancer above background, above the normal, 1 out of 10,000. That's where the 160 comes from, from that risk number.

Now, again, what we're planning to do now is lower it to 5 parts per billion so that anybody at that level needs to have treatment, but beyond that, we're saying that some of those home wells that have even 1 part per billion or less than 1 part per billion could be impacted in the future.

Therefore, we are going to provide the option for that homeowner, if they choose-- we're not forcing anybody to take a treatment system who doesn't want it-- if they choose, we could provide that under this proposed plan.

CITIZEN: What's the furthest point from this Far

area where you suspect the origin? What is the farthest you have tested from that area?

MR. SCHROCK: Basically, the intersection of Forgedale and Dale.

CITIZEN: Well, there's a spring located at Forgedale and old Route 100. Have you tested that level?

MR. SCHROCK: Yes. As far as I know that was clean from the chemicals that we know are at this site.

CITIZEN: Yes, because a number of years ago I know that a doctor in the area, at that point in time, had that water tested and found it to be a noncontaminable.

MR. SCHROCK: Yeah. We do not find the trichloroethylene from this site. I have heard, bearing on season and time of year, that sometimes the bacteria levels are high in there, but again, that's not what I'm testing for at this point.

CITIZEN: Well, one of the reasons I'm questioning that point was that I know that the Federal Government doesn't want to spend tax dollars any more so than they have to. Therefore, I was wondering why they were considering coming as far down as Forgedale Road and Route 100?

MR. SCHROCK: Well, we've had contaminants reported on Forgedale. That, you know-- I think is just for everybody's peace of mind. A lot of people go get water

from that spring. That's a source that I think we have a responsibility to look at since I'm doing the whole area, and I'm still going to be looking at that. One of the deeper wells is going to be between the site and the old Route 100 to try and look at like 500-feet deep to see does there have any movement coming through that?

CITIZEN: How far is the site at this location from the Texas Eastern?

MR. SCHROCK: Well, that's right close there to Forgedale Road. I think it's 9,000 feet, something like that, but I'm not good on those kinds of numbers.

Okay, let me try and get a few more questions.

CITIZEN: Have you found any similarities between the Hereford Township Site and the District Township Superfund Site, approximately 4 and a half miles north off of Benfield Road, where all of the wells were drilled there and the cleanup was up there? Have you compared the similarities of what was found in both places?

MR. SCHROCK: As far as I know-- I think you're talking about what I call the the Berks Sand Pit Site?

CITIZEN: Right.

MR. SCHROCK: And I think that's in Longswamp Township. But there are similarities in the fact that they both used the industrial solvents, but they are specifically different compounds: Trichloroethylene and

trichloroethane. One is called TCE which is what we have at this site. The other one is called TCA, so they are not the same compound, but they certainly behave similarly and are health effects-wise very close.

CITIZEN: Were they both used at Bally Case and Cooler.

MR. SCHROCK: They were used interchangeably back in the 1960s. They both did the same thing, so I couldn't tell you for sure. I honestly don't have-- Bally is another Superfund site in and of itself, and I don't have a lot of the history of the company to go on at this point.

CITIZEN: You said that you were going to dig deeper in the bedrock. My question is (not audible) deeper into the bedrock, wouldn't it be better to take samples around Bally rather than to drill the wells deeper and possibly contaminate it deeper (not audible.)

MR. SCHROCK: Okay. The question, basically, if I can summarize for the stenographer, was why do you need to drill such deeper wells further away from the site, instead of wells closer to the site? Is that it?

CITIZEN: Well, if you go out of the mountain and test the wells around the mountain, you get the same depth of water (not audible) drilling to 500 or 800 feet or whatever you're going to go.

MR. SCHROCK: Well, by putting in the wells as

we're doing-- and correct me if I'm not completely right-- I can isolate a certain fracture. The home wells that are existing out there, I cannot really go back and make sure that it's this fracture verses 1 in 60 versus 1 in 40. You know, it's pretty much-- I believe many of them could be open holes. Many of them have been around longer than we have records. So we are going to be doing some closer to this site before we even get to where the home wells are, as well as going out beyond the home wells and going deeper.

CITIZEN: But by going deeper, if you don't have a pollutant deeper, you're going to contaminate the water deeper.

MR. SCHROCK: No. We can seal the hole as we go down. We will be looking at a depth rather than leaving an open hole. Am I right?

MR. KILMARTEN: Yes.

MS. PASQUINI: Basically, when we're drilling these deeper wells-- it's a very good question that you brought up. We don't want to bring contamination deeper. The reason why we're looking to 500-feet deep is to get an understanding where the regional flow system is discharging and to make sure that the contamination, the trichloroethylene, which has a tendency to sink down deep into the rock where there are fractures and settle into

these fractures, we want to make sure that the well system that we have, or the monitoring system that we have, is evaluating whether or not the contamination hasn't gone deep and it isn't going underneath your wells and going, for example, to Bally and to some wells that are in the valley there.

CITIZEN: Can you indicate on the map or verbally describe where you found the plume of contamination or some kind of landmarks?

MR. SCHROCK: This is actually the map that I've been using to talk about when I say it's Alternative 4, which was extending the water line. It is not the Preferred Alternative at this time, but I feel we had to look at it to see what the possibilities are that, again, would provide protection to individual homeowners. All right, so based on this map I'll try and tell you where we have seen the contaminants.

Okay. This is Huffs Church Road going here, Dale Road going down here, and then Forgedale at the bottom. This is Dairy Lane. I can't remember the name of this one.

All right, the way this map was drawn is to show two alternatives for this water line, which we're not proposing to do, but just to give an idea to the public what we're looking at. The solid lines go by homes that

are actually contaminated that would need treatment. We have at least 30 wells that are above the contaminant level of 5 parts per billion. The solid lines go by those homes. So, again, the main focus is right here on Dale Road, not far from the top of Blackhead Hill.

CITIZEN: So that map actually describes where you've found the contamination? That's where you found it, and that's sort of an outline of the plume of where it's been found?

MR. SCHROCK: Basically, from here to there.

CITIZEN: What is that road down at the bottom? Is that Forgedale going on to 100?

MR. SCHROCK: Yes.

CITIZEN: Where does 100 come in?

MR. SCHROCK: Down at the very bottom of the map.

CITIZEN: That black ball?

MR. SCHROCK: Yes. Now, there are not any homes contaminated that far down, but yet, the water line would have to come up through there as we--

CITIZEN: So where is the last point of contamination?

MR. SCHROCK: Basically right in through here.

CITIZEN: Then I think we got a faulty notice because we're further south on Forgedale Road.

MR. SCHROCK: There are at least four homes in

Washington Township. I am not exactly sure. I don't know your names and all, but we can work that out with Kevin and Bernice and put that together a little better.

Now, the other reason that I have the dotted lines is that a second part of the water line alternative, which again we're not planning to do, was to make it a loop system. From what I understand, in terms of water quality, a loop system makes for better water quality for the individual homeowners who use it, as well as if there's a problem with the line, it gives us another way to get the water there. So this is basically the map showing Alternative 4. One was the loop which was about 11 million, and one was just the branch going to the homes that need it, and that was about 8 million.

CITIZEN: Can you tell us a little bit about the treatments that you put in the individual homes? In other words, are we running any kind of a risk with the treatment systems?

MR. SCHROCK: Kevin, why don't you talk about the treatment system that we're proposing in Alternative 3, which was the point-of-entry treatment, which is the one we're actually proposing to use.

CITIZEN: Or the ones-- say the ones we have already.

MR. SCHROCK: Well, basically we are using the same

systems--

CITIZEN: Uh-huh.

MR. SCHROCK: --using the carbon filters, so let me have Kevin talk about that for a little bit.

MR. KILMARTEN: Okay. What I have in front of me, this is a-- just a schematic of what the treatment system looks like in, maybe, engineering terms. This figure is from the Focus Feasibility Study, and basically, what it is, it's a dual carbon system treatment unit. What it does is as the water comes in from your well-- there's various components to the system. What you see here, there's a pre-filter that takes out sediment or silt or, you know, just solids that may be kicked up by the pumping of the well. There's then two individual carbon units.

What we have found with the units that are presently, you know, in the area operating, is that by far and away, the large, large majority of the compounds are removed by the first carbon unit. But as a safety measure, we designed it with two carbon units. And what that does is, if by some chance one of the chemical compounds was to what we call "break through" the first unit, we have a second unit-- and naturally any compound that would break through the first unit is going to be in very, very low concentrations, because most of it's been removed by the first unit. Then you have a fresh second unit behind it

that really will capture any of the compounds that would happen to break through.

After the water has passed through both of these carbon units and all of these compounds have been filtered out, there's-- in this case here, you see a UV, or ultraviolet system, and what that does is destroys any bacteria that may be in the water, and from there the water, as you see, goes to your pressure tank and ultimately into your system.

The system is also designed-- you can see-- if you see maybe these symbols here, they're sampling ports, and for you folks who do have these units at your house, you know, that many times either my company or another contractor from EPA comes by to sample your well. And what they often do is they'll take a sample from before the carbon units to see what that raw water coming out of the ground is composed of. They'll sample between the units to-- basically what they're doing there is monitoring the condition of this first tank, because after a while, then the carbon basically gets spent, or gets used up, to where it just can't absorb any contamination.

Again that's the reason we have the second unit as sort of a backup or fail-safe unit, but also by sampling in between, we know when it's time to change these units out and get fresh carbon in there. And typically the third

sample that's taken then would either be from one of these sampling ports here or actually we go right to your tank to sample just what that finished product-- what your water is.

CITIZEN: How often do they have to change the filters, or whatever, or do they have to change the filters, the carbon filters?

MR. KILMARTEN: Roy, do you know the answer to that?

MR. SCHROCK: What we're planning to do with this plan, and again I don't know exactly how often EPA has been out there for each of the homeowners before, is to take these samples every six months, and if it needs to be replaced, we would replace one of those two carbon tanks. And my understanding is when we did the engineering design work for this Feasibility Study, we oversized them so that theoretically it could last a year, but we still, I think, need to check, particularly on some of the homes that have higher concentrations.

CITIZEN: How big are these tanks?

MR. SCHROCK: Do you know what size they put them at?

MR. GOOD: Maybe a foot in diameter, 4 feet tall.

CITIZEN: Sir, why do you take the aerator off the spicket before you take a sample?

MR. SCHROCK: Why do I take what?

CITIZEN: The aerator off the spicket before the EPA will take a sample of the water?

MR. SCHROCK: These are volatile compounds that they would actually get dispersed in the air. One of the ways they can treat them is to trickle them down over a number of layers so that they actually leave the water and go into the air. They would evaporate. So an aerator would lessen the concentration that they are really seeing at the tap. I think I'm right. Rob?

CITIZEN: You have here that 29 residents have been identified. Was that from the sampling you did from November and December of--

MR. SCHROCK: Yes. Those were 29 residents that were above the level of the MCL of 5.

CITIZEN: That was about 14 or 15 months ago. If we weren't contaminated then, who's to say that we're not contaminated now?

MR. SCHROCK: Well, we're going to be going around and doing more rounds, as well as-- if there was even trace levels of contaminants from TCE or other compounds, we would have to be looking again. But we are planning to do another follow-up round of all of the residents before we finish this remedial investigation.

CITIZEN: A couple of questions. I have been

monitoring my water quality over the last three years. It started out to be, I think, 62 parts per billion of the TCE and it's been steadily rising. Your study indicated that if it was up over 1100 of (not audible) that that might be low. I'm wondering if you're seeing the same type of trend at other residences as well, and did you consider those trends in your evaluation of the treatments systems? Plainly speaking, mine seems to be getting quite a bit worse at a fast pace. I'm wondering if this system will be adequate?

MR. SCHROCK: It should be adequate in terms of treatment, and again, they're oversized so that we will be able to come back every six months and check in between. do believe that you may be in a spot where the level of contaminants are rising and going down toward the valley over there, but again, we're going to have to keep track of that one.

You were not-- not that it's going to make any difference, who is or who isn't, you were not the absolute highest in terms of contamination, and the current wells are there and are still working for those residents who have even higher concentrations, but it would mean we may need to replace yours more often because of that kind of concentration.

CITIZEN: With a reading of 1100, when would you

expect that this plan gets-- goes through, and I'd get some treatment system help?

MR. SCHROCK: All right, timing. If we go forward with this point-of-entry treatment system by-- I would like to get the record of decision out by either the end of March or the middle of April. In terms of process, I have to begin what I call a design phase; who gets them. We find this system to make sure it will deal with each of the homeowner's problems. We may have some metals we might have to worry about that this system may not, in fact, deal with, there may be some bacterial problems that the UV may have to be upgraded to something better.

But at any rate the design phase could last as long as-- I'd say three or four months, so I could maybe start installing units within eight, nine months from now. That's probably the best schedule I could hope for.

CITIZEN: Relative to the fact that it's been going for a long time and from what I hear you saying, there is no guarantee that this scenario that has been placed over the area, whether real or imagined, would be corrected by these treatment systems. It seems to me that the only viable alternative to remove the whole scenario throughout this whole area is for you to, indeed, deal with number 4 in your plan.

MR. SCHROCK: Well, that's something we're going to

have to look at again. I mean it's not gone.

CITIZEN: Because otherwise who's to say that three years from now something else could develop out of who knows where.

MR. SCHROCK: Exactly.

CITIZEN: So how could you possibly stand there and say those systems that are costing millions of dollars that are not essentially, on the long haul, effective to be a viable option. And how can you possibly say that the first option has no-- first option is do nothing. I mean if we're talking about the risk factor, how can you possibly say that one of your options is to do nothing?

MR. SCHROCK: That's required by the law that--

CITIZEN: Required by the law? It seems to me that the only viable solution, that what I hear you saying, is that to remove this God knows what out of the area that's been perpetuated, is to effect the area with a clean water line.

MR. SCHROCK: Again this option that we're selecting right now is considered interim. We want to finish the entire study to see what we know about the entire area. Believe me, the water line option will come up again in two years when I'm looking at a final remedy for this site, but right now what the Agency is looking at, spending 11 million dollars versus 1 million dollars, we

would prefer to look at the entire site, finish our study, and then look at what is the final remedy to clean up this site, and water line, again, will be considered.

CITIZEN: You've been spending millions of dollars for last 15 years.

MR. SCHROCK: I know but that's--

CITIZEN: That's our money that your spending.

MR. SCHROCK: Well, a lot of it comes from the industry and income tax, not that they don't turn around and charge every homeowner out there for it, you're right. But yet, the fund is in place.

Well, right now, to be truthful, Congress has not reauthorized the fund. If I chose the water line right now, I don't know when I'd have 11 million dollars to put in that system. That doesn't change the fact that I do need to do something right now. Even if I selected the water line now, I would still put carbon units on these homes until I get a water line built. So I think we need to start something and ultimately we will have to look at the water line option again.

CITIZEN: Are they going to put water filters on all the homes that are border property to this site, even if they're below minimum of what you would call safe levels?

MR. SCHROCK: If we have found any historical

detections, we are going to give that homeowner an option as to whether he wants a filter or not.

CITIZEN: Even if it's--

MR. SCHROCK: If it's below the 5, yes. And even if it's a different compound other than the trichloroethylene, you could very well be impacted in the future so we'd rather be safe and cautious.

CITIZEN: Well, my property borders-- is a border property to this site and supposedly is supposed to be under safe levels. Will they put a filter on my home in case of contamination?

MR. SCHROCK: If there's a detection, yes. We're considering that.

CITIZEN: I've already just had one cancer operation, and I can't afford to go six months until they test my water again and find all of a sudden that it's contaminated. Six months of drinking that water could kill me.

MR. SCHROCK: I'd have to look at your results that we sent to you, and I could tell you just by looking. But if you had detections, yes, you're in the consideration.

CITIZEN: Do those levels-- is there any possibility of anything being in that water or if it falls below the safe levels it's nondetectable? How does that work?

MR. SCHROCK: Well, there are detection levels, yes. There are cases where you could see a non-detect and something could be there, but we specifically chose a very, very low detection, in fact, I think the lowest that we could obtain. We've used the best detection and the lowest detection that we could use.

In fact, the EPA laboratories did the analysis, so I'm not even as concerned about did they do it right? I have people who do their own work, their own analysis, and they do their own quality checks to make sure that they did it correct.

CITIZEN: So if the water's considered safe to drink from a fountain, even though you're bordering on the property, you won't put a protective device on the home?

MR. SCHROCK: No, that's not what I said-- if you have any detection, even if it's below what's considered safe.

CITIZEN: Well, my neighbor came back and it was less than one.

MR. SCHROCK: The nondetects?

CITIZEN: Nothing was on it.

MR. SCHROCK: Well, we'll have to talk about it. I'm not going to say that that means absolutely no. That's part of the comments that we need to work and respond to, but I'm certainly willing to put people who are potentially

in the pathway on the system, so that we don't have to worry about that. Now, again, I just don't know exactly where you are and where you live, but yes, it's a possibility.

CITIZEN: There's a well not far from here that's contaminated with that same contaminant. What are you doing with that well?

MR. SCHROCK: Which one is that?

CITIZEN: It's located near the Case and Cooler--

MR. SCHROCK: The Bally?

CITIZEN: Yes.

MR. SCHROCK: That's actually the Bally Municipal System, and what they've done-- and again this is actually the well. If we were to build a water line, this is where the water would come from.

What they have done is they've built a stripping tower. I'm not an engineer to describe it exactly, but it's basically a big tower where the water trickles down over a number of different layers, and by the trickling action, the trichloroethylene evaporates from the water, and then it's collected in carbon canisters on top of that tower. They are actually treating the water to meet drinking water standards and then using that as a municipal supply. They actually treat two times the amount that they need to service the number of customers they have, which is

why we know there is an additional source of water that we might be able to use, which would be considered a public system.

CITIZEN: Wouldn't it appear that first priority should be to locate a contaminant as number one?

MR. SCHROCK: Absolutely.

CITIZEN: Rather than to spend a whole lot of money in trying to fix something that's just trickling out and leaking out and going all over the place.

MR. SCHROCK: That's entirely what we're doing. That's part of the study, trying to locate that, and if I can find a particular spot where something is buried, yes, it's going to be coming out.

CITIZEN: That's happening right now?

MR. SCHROCK: We're in the middle of doing all of those studies, yes.

CITIZEN: How many homes do you have that are not above the risk factor in their wells?

MR. SCHROCK: All right. There are really 29 homes, and then there's two other wells that are considered public supply at the trailer park up there on Dale Road. So there's basically 30 sources above 5. What I've costed out here, what I consider this Preferred Alternative, looks at up to possibly 70 homes that have some kind of contamination, whether it be the trichloroethylene, whether

it be toluene from a sample taken 4 or 5 years ago or even-- some of these samples, we actually think maybe the lab did make a mistake and came out with these extremely low levels of something, but I've included those.

We're not really done with it, but approximately somewhere between 70 to 30 would be the number of additional homes we've seen some kind of contamination, not necessarily really from the site, but we don't want to take chances. If it is, we'll provide treatment. That's why I say there might even be homes in the pathway that might be considered, you know, based on location and not necessarily a real hit.

CITIZEN: If you don't have a well now, are you going to put one in to be covered under this program?

MR. SCHROCK: I guess so. I mean it's hard for me to say at this point. That's, you know, it's hard to say that if you already know it's there, can you put your own well in? But the idea is we will be continuing the sampling.

CITIZEN: If I don't put a well in what am I supposed to do not have drinking water for the rest of my life?

MR. SCHROCK: Well, again, I can't on blank open statement just say yes in a public meeting like this, but certainly I'm willing to look at homes that have

potential. Yes, there's still a potential. If we go around 2 years from now and find something there, then yes, you'd be put into the system. But I couldn't automatically tell you right now that you'd get it, not knowing what the pattern on that end is. The potential's there.

CITIZEN: There's some articles in the Mercury a few years ago-- previously there was an article that only goes back about 5 years ago in which there were some interviews done with people that were knowledgable about what went on (not audible) and they seemed-- the articles that if I recall correctly, they seemed to know exactly where this site was, because there was trees that died, you know, in the immediate vicinity, and I'm wondering if the people around here knows so much about where this stuff was, why are you guys having such a hard time finding that source?

MR. SCHROCK: Well, what we've done is we've gone back to aerial photographs from the 1950s up through-- we looked at places that could be disturbed-- and that's part of our geophysics, looking for anything that might be metals that are buried, soil gas, looking for any of this trichloroethylene that would vaporize up through the soils-- and there still might be places that we haven't looked that we still need to.

One of the biggest problems that I've seen up in

this area, and I've worked up at the Berks Sand Pit Site, is that there are a lot of sinkholes, and there are a lot of mining shafts around here that-- I am not responsible for looking at all of it. However, in this particular location, we've got to find an area that we're doing our study, but if there are other areas that we need to look at, even if it's across Huffs Church Road, we are going to be sort of expanding our residential well sampling to see if there are other homes that might be affected by other areas close by, but again, I have heard all the stories. I've got a lot of those stories in writing, and that's part of the way we planned the study, to look at the areas that people have told us about.

CITIZEN: Will you be actively checking out these mine holes?

MR. SCHROCK: If they're within the area of the Crossley Site, the Superfund Site, and if we think that they are impacting homes here, yes, we will be going out. If they are outside of what I consider this site, we can refer them to another program that does site investigations and can go out and take samples. Again, EPA does that responsibility, but if we have information and we need to go look at another place, there are people from EPA who can get that work done.

CITIZEN: Why are they allowing continual dumping

on the site of the municipal waste if there's already a problem in this area?

MR. SCHROCK: Well, to my knowledge, there's no dumping going on at this site.

CITIZEN: (not audible) tanks which are pumping municipal waste from the sewer plant. Why are they allowing that when there's already a problem?

MR. SCHROCK: I've already looked at the analytical results from that sewer sludge. They do not contain the kind of chemicals that we have a problem with here. There's a whole other state-regulated law agency called the Land Farming-- what's it called? At any rate, they have a permit to put this sludge back into the soil.

CITIZEN: But how much are they going to put this community at risk by allowing them to dump different chemicals at this Farm?

MR. SCHROCK: I've looked at the results. They do not have the different chemicals that we're worried about.

CITIZEN: What's the difference? That still can affect residences in the areas with the high bacteria levels in the water.

MR. SCHROCK: Well, again, that's a concern-- and I do know who we can contact to address that, but they definitely are not putting in the contaminants that we have seen coming from this site.

CITIZEN: Sir, when did they change the interpretation of the gases from parts per million to parts per billion, and why?

MR. SCHROCK: I'm not a chemist. I think it's just the matter of progress in terms of how good analytical methods can be. I have other sites where we're looking at dioxin in well below parts per trillion levels. Analytical methods are simply getting better as we progress, so the Agency is using better methods to find lower levels all the time, any number of different compounds.

CITIZEN: Regarding your map showing the proposed borderline for Alternative 4, I'd like to make note that that is not the closest route. Crow Hill Road is the shortest route by eight-tenths of a mile and is about approximately the same route as if you take 7th Street out of the Borough, down around Stone Road, right through Dairy Road at one of the sites.

MR. SCHROCK: Okay.

CITIZEN: If you're considering the water line, wouldn't it be more cost-effective to have a common well closer to the site and treat the water and redistribute it from there, instead of pumping it uphill with four pumping stations four miles from Bally.

MR. SCHROCK: That's a good question. At this point, I don't know enough about where the contaminants a

and where I'm going to put one of those kind of wells. I do need to complete the study before I can even come up with a location, as to where I have to do that, but even more important than that, EPA is not going to put a new well in and operate a water authority.

We cannot get into the water authority business. I have to get a municipal authority or a municipal township--somebody who would be willing to operate this, and I can tell you, in Pennsylvania, it's not an easy thing to find. It would most likely be in Hereford Township.

CITIZEN: If you build it, we'll run it.

MR. SCHROCK: I hear you.

CITIZEN: As soon as possible.

MR. SCHROCK: This is something that I don't know that I can say now. Again, it may come up two years from now. That might be the best idea, but to be honest, I'd have to put in a whole treatment plant. I'd have to get people to operate the treatment plant. It doesn't necessarily work out to be cheaper by the time I build the system and can run it.

CITIZEN: With what Joe said about the shorter route by almost a mile from the Borough line, and where the hydrants are by north Church Street, who made the decisions to plan the route all the way out Route 100 and up Forgedale Road when that's not the shortest route?

MR. SCHROCK: We just-- again these are alternatives and we're just looking at--

CITIZEN: Is that something EPA decides or the Municipal Authority or--

MR. SCHROCK: It was EPA's decision basically, but again, that's one of the purposes of this kind of a comment period. It may be that, you know, once we get into the next phase of design we would be routed a different way. That's a possibility.

CITIZEN: What would be a monthly cost for a homeowner to get this water?

MR. SCHROCK: We look at that--

MR. KILMARTEN: Roughly $35.

MR. SCHROCK: $35 to $40 is what we estimated.

CITIZEN: We must pay that?

MR. SCHROCK: Ultimately, yes, that would be the homeowner's cost. Now, EPA could pay for putting the hookup to the house but would not pay for the monthly bills.

CITIZEN: Going back to contaminants, you're using the term (not audible) and reference was made to something which was put on the soil across the board, and I'm also next to that Farm. I was under the impression that what was going on there was actually producing to the growth process of the Farm and it was a positive thing and you,

indeed, referred to contaminants. Is that indeed something that's negative about the area, or is it something that is positive in terms of farming industry?

MR. SCHROCK: You mean the land farming? The addition of the sludge?

CITIZEN: What is put on to the property for the soil?

MR. SCHROCK: My understanding is that it does help in terms of growth.

CITIZEN: So it's really not a contaminant that you referred to, but actually something that is positive?

MR. SCHROCK: I think that's the way the regulations would read under the State. My only concern there, and I don't know-- I didn't look at these results-- the thing that I don't know-- and I couldn't interpret for you without a lot of people looking at it for me-- would be the metal content. I just don't know enough. But I did look at that they do not have the trichloroethylene or any of the volatile compounds that we have a problem with at the Crossley Site.

CITIZEN: It seems to me that the process itself of eliminating TCE is basically because of the ways they dumped the stuff and it gets, you know, run over the filters and stuff like that. All the TCE is just a bad reaction, and I can see that. (not audible) in the

municipal waste.

MR. SCHROCK: And they contacted me several years ago and I went, again, purposely to let me see their chemical results so that they could feel comfortable about that.

CITIZEN: What were the carcinogenic effects of exposure to TCE? What other less fatal symptoms to people and livestock are we subject to?

MS. JAFOLLA: Most of them-- you may have nausea. In cases where you've had exposure to high levels, you may have fainting and-- relative to-- fainting spells and can possibly-- I can't think of the word.

CITIZEN: May be episodic or chronic?

MS. JAFOLLA: It depends on the exposure. If you have an acute exposure you can actually die from this. You can become unconscious. So it depends on the concentration and the exposure, but with an acute exposure you can become unconscious, and it can lead to death.

CITIZEN: Isn't it true that the test data that was done to delineate the possible toxicity of that stuff has only been done on rats and has never been done on humans?

MS. JAFOLLA: Yes, that is true.

CITIZEN: That is true?

MS. JAFOLLA: Right.

CITIZEN: There has never been any case whatsoever documented by-- either through the EPA research or anyone else, that exposure to this level of volatile compound has any effect on human health at all? Isn't that a fact? That's correct, is it not?

MS. JAFOLLA: I'm going to have Jack answer that.

MR. KELLY: My agency is another federal agency different from the EPA. We're involved with a lot-- quite a bit of research on TCE and the effects of low levels. Potentially you're right. If you're asking the levels found in these wells, if we had any evidence today, they in fact, would know that they would cause effects to humans, I'd say no. Most-- we do have human data--

CITIZEN: May I interject a second here? Don't you think that's a very, very critical point that you just made? You just said that there is no evidence and you just said, no, there is no effect on people's health from the levels you have found in this well. But don't you think that's a pretty important--

MR. KELLY: It is important, but the whole signs of risk assessment that we do, we come up with levels to say what's safe or not safe to humans. We have to be prudent. We have to extrapolate downward from animal studies--

CITIZEN: But isn't it true that the United States Congress for the last six years has been trying to get the

EPA to deal with the concept of risk assessment and they have been fighting it tooth and nail? It is my understanding of it and risk assessment basically says that all of us want to have a clean, healthy environment.

However, before we allocate the type of funding necessary, we need to prove that what we're talking about is, in fact, detrimental to humans. And in this case here, there is no evidence whatsoever, either documented or suspected, that these type of compounds have any effect on humans.

CITIZEN: I will not take that chance, sir. I will not take that chance.

MR. KELLY: Wait a minute. Wait a minute. Let me answer this one. I will, believe me. I have to wholeheartedly disagree with you, because essentially, you're asking folks to live with this. You're asking folks to say if there's been no documented health effects--

CITIZEN: I'm not saying that. I'm just saying has there been any viable testing? And I'm going back to what you just said just a few minutes ago, that there has not been any proof. That's all I'm saying.

MR. KELLY: I understand what you're saying. I disagree with your theory.

MS. JAFOLLA: It's not correct that we only take action on carcinogens that are proven to be a concern to

human health. We do regulate for carcinogens that are probable carcinogens and even what we call possible carcinogens, so what you're stating is incorrect.

CITIZEN: Is formaldehyde a carcinogen?

MS. JAFOLLA: It's a carcinogen. It's what we call-- would lead to probable carcinogen. It has not been proven yet to be carcinogenic. Again, there have been a few studies that may suggest that.

CITIZEN: But is it true that there are 3,000 parts per billion of formaldehyde in our blood? Isn't that a fact?

MR. KELLY: I don't think so. I doubt it.

CITIZEN: According to Dr. Aimes who developed or discovered the (not audible) he said that that's the case.

MS. JAFOLLA: Well, certainly that will be taken into consideration in the toxicity factors.

CITIZEN: I believe I can answer this gentleman's question.

MR. SCHROCK: Okay, I'll let you.

CITIZEN: For 39 of my 41 years at Dolan Jarvis, I was a working around carbon tetrachloride, perchloroethylene, and trichloroethylene. I even had charge of recovery methods for those. We used them as a degreaser for our-- to remove the oils that we used in manufacturing die castings. We used them to degrease those

die castings, and then we would distill-- when it got dirty we would distill the mix in order to recover what was still good. And then we would have to dump that sludge into 55-gallon drums, and it would be hauled away.

Now, I know that Dolan Jarvis was cited at one point in time and paid almost $100,000 fine for some of that having gotten into the Schuylkill River. Now, this is a number of years ago.

Now, in order to answer his question, at the end of those 39 years that I worked-- I worked 41 years-- at the end of 39 years, OSHA came in and told us that it is a no, no. There shall be no more carbon tetrachloride. There shall be no more trichloroethylene. There shall be no more perchloroethylene, because from here on you cleanse your materials with soap and water or you send them to the company you made them for, with the oil on them. So that should answer your question.

CITIZEN: Okay, thank you.

MR. SCHROCK: I want to sort of intervene something that I had said earlier if that's okay. You know, one of the alternatives we have here is the No-Action Alternative, and EPA firmly believes that there is a risk with a No-Action Alternative at this site. But beyond the risk data that you are looking for, Congress has directed the Agency to abide by every other regulation that's out

there. And for this particular situation, those drinking water standards are really what is going to dictate that EPA must do an action at this site.

So as circumspect that you might think the data is under this program, I have an obligation to do treatment, because the State has standards and the Federal Government has standards that says 5 parts per billion of trichloroethylene is too much, and therefore, I've got to take an action regardless of the suspect risks.

CITIZEN: Sir, it just seems ludicrous to me to go through all of these stages and all these steps to every letter of the law, and spend millions and millions of dollars for the next three or four years, when you know damn right well, as do all of us, that the only thing that's going to solve the problem is a water line, and how many years and how many millions or billions will be wasted?

MR. SCHROCK: I'll be honest with you, you know, EPA has 10 regions across the country. And the two that I personally felt were the only alternatives were this point-of-entry treatment and the water line, but I found managers in every single region across the country that have viewpoints similar to yours and opposite of yours. So I don't think the Agency is making a flat statement that a water line is always the best thing.

In this particular case-- again I'm looking at maybe two or three years of treatment systems until we can look at a final remedy, and again, water line will be one of the alternatives we look at. It clearly has potential that we're not going to ignore, but I'm just not going to choose it at this time.

CITIZEN: In order to speed up the finding of the source, wouldn't it be a good idea to offer a reward for someone who knows where the site is, where this material was dumped? You're spending millions upon millions of dollars, certainly a few thousand shouldn't hurt.

MR. SCHROCK: Well, believe me, we've got all kinds of people that have told us where things are, and those are the places we're looking at right now. But before I start digging in with a backhoe, I'd like to have some evidence that, you know, I've got metals buried here. I've got some soil gases that are coming off from that particular spot. I think we're in that vicinity.

I'm not saying that there aren't other places that maybe we ought to look at, but I think we're getting closer in looking at-- at least the areas on top of that hill, where we think there may have been something that happened.

CITIZEN: Well, the other risks of death or risks to your health, one of them is, in particular, emphysema. OSHA told us that, so if you will check with OSHA you could

probably find out.

MR. SCHROCK: Now, one other thing about this particular site is that on top of that hill a large area is actually bedrock at the surface. So as much as the stories tell me that it was put here or put there, they didn't dig into the rock. It's not there below the surface when you've got rock all the way up to the top. But again we are looking at the areas.

Again, a lot of our real source is looking at historical photos-- like I say, going back into the 1950s. Was there any digging done over here? Was there this? You know, and I'm not talking just the top of the hill, I'm talking the entire valley. We're trying to look at those things. But again, with all the mine shafts, sinkholes, I certainly will not claim that we have looked at every spot that could possibly be found.

One other thing before I'll take one more question-- not that I want to end it, it's just I wanted to make sure that I at least went through the actual four alternatives that are in the plan.

The Second Alternative we looked at was actually delivering bulk water to the homes, instead of offering a point-of-entry treatment system, and again, I don't think this one is as reliable, particularly knowing some of the winters that we've had the past. Just the whole idea of

having trucks come up every week or two weeks to deliver water might get in to be a real problem.

So again, the four alternatives were the no-action, the delivered bulk water, meaning a tank outside the homes, the point-of-entry treatment, and the water line. The Third Alternative is this point-of-entry treatment system, and we're looking at offering it to those who have affected wells and those who are potentially affected. So it has a rather broad scope, and we do want to just continue to get any comments we can to define exactly where we want to approach this.

CITIZEN: Can this contaminant affect other aspects of the environment other than water? For instance the ground that you grow something in, livestock? Is it something that's in the air?

MR. SCHROCK: I would say yes, but I don't have a whole lot of experience. Nancy, do you have an answer?

MS. JAFOLLA: I'm not an ecologist, but if you're talking about surface water-- maybe the cows would drink that-- is that what your asking?

CITIZEN: Well, no. You're talking about water. I'm thinking air, ground, the soil. Does it appear--

MS. JAFOLLA: Well, it's a contaminant of water so the impact on any livestock-- it would be the same for human health as well.

CITIZEN: Well, I'm thinking of growing in the garden-- just breathing the air. You say it's volatile so it goes up into the air.

MS. JAFOLLA: Yeah. The major concern is the ground water, because that's where it poses a problem. When you expose it, it's going to volatilize, and it will be just gone. The concern would be mostly in the home when you're showering or cooking or something like that. (not audible) there's just water for the treatment system and not just water-- bottled water.

MR. SCHROCK: Part of the full investigation will included an ecological impact, so we will be looking at things such as the plants and other ecological factors.

MS. JAFOLLA: I don't believe we address livestock.

MR. SCHROCK: I don't think we do livestock, but there will be ecological--

MS. JAFOLLA: There will be ecological.

CITIZEN: If you are planning to do Alternative 3 now, in the long term will Alternative 5 for the Feasibility Study be revisited?

MR. SCHROCK: That was the well field?

CITIZEN: Yeah, community system versus public system.

MR. SCHROCK: Yeah, we'll certainly revisit that. And again, the main reason it was screened out at this time

was because we don't know where we would put it or who would operate it. So it's certainly still a possibility to look at.

CITIZEN: I wonder if you could-- we talked about a little bit of this earlier, if you could dispel some rumors that are going around in some of the townships, in that the EPA is being lobbied by the Washington Township Sewer Authority to put in the water lines so that they can lay sewer pipe at the same time at no cost to them, and have you been lobbied for that? And, if so, what are your intentions? And I guess that's it.

MR. SCHROCK: Okay. No one has been lobbying EPA for any of these alternatives. I did, in fact, approach Washington Township Municipal Authority, because I knew that was one of the proposed alternatives that we were looking at here, and I didn't want to go public unless one, they were in fact really interested; two, if in fact they had the capability. But as far as the sewer line, it was very clear that's not part of my alternative. I would never propose the sewer line.

Now, when you're looking at it from, you know, common sense standpoint, if you're going to put in a water line and if you're going to put in a sewer line, you ought to do it at the same time. But we've never proposed that we were going to do a sewer line, and we never were lobbied

by the Authority to do a water line or a sewer line. I approached them just so there weren't any surprises, just like I made sure both Townships had copies of these plans so that we could be sure that there were no surprises for public officials and those kind of agencies.

CITIZEN: Okay. I'm a supervisor in District Township and part of this proposal, the loop, would be into this Township. Now, if and when that time comes, which I hear you say is about two to three years from now before you would even consider that water line, would you have to come to District Township to get permission, or would you just automatically do it?

MR. SCHROCK: No. We have no automatic-- do anything. EPA is willing to pay for this alternative, but when you're in a situation we have here, three townships, one Authority, the Borough, the Borough Authority, it's very clear the way we've written it, that to even pursue that type of option, requires a lot of coordination among a number of governmental agencies.

But we are not in a position where we can say, you have to let us through, particularly knowing that in District Township we don't have any residential homes that are contaminated there, but just the whole concept of going with the Washington Township Authority and going into Hereford Township, that's a political avenue that I cannot

force anybody to agree to, and that's one of the problems that we've had with water lines across the entire state of Pennsylvania.

We have so many townships, so many boroughs that, you know, to get that kind of a project up and running and to have somebody take it over, it's not an easy task. We've had townships that have agreed to run the treatment towers and then decided after it was built that, well, I don't really need that water, so we're not going to run it anymore. There's no guarantees. So no, we couldn't force the Townships into any of these alternatives.

CITIZEN: What kind of impact does this have on property values of all of us homeowners that are still paying taxes on full property value, and now, we couldn't even give them away.

MR. SCHROCK: You know, I'm not really in a position to talk about property values or property taxes. I think the Agency can be in a position to say that we have provided a remedy which makes this home as good as any other home that has their own well, and possibly even better. So, you know, I think we can give any homeowner that kind of assurance once we've got the treatment system in, that this does, in fact, work-- provide you with the data that shows the water is clean, and therefore, increase your ability to sell.

CITIZEN: Would you buy my home knowing my husband already had cancer?

MR. SCHROCK: I know I have-- in fact the first time I heard about this Site was because I have a very close friend who, in fact, was going to buy a home up here. He chose another place, but yet, I think there are many people who would buy homes up here. There are many people who would like to get away from the congestion of their homes, and you've got some nice properties up there.

CITIZEN: Why did they let us build them in the last five, eight years when they already knew there was problem there and they were letting us sink all these new wells. I can't understand-- nobody, when they went to get the permit to built these houses, why wasn't anybody informed that we shouldn't be sinking any more wells because we have water problems?

CITIZEN: And why are they still letting them do it?

MR. SCHROCK: Well, my understanding-- and again I don't run the Township or have any authority here-- from those that I do know, they have been informed, but again, I'm not the one in that position.

CITIZEN: In the last eight or ten years the real estate has bottomed out in this area because the water poses problems, and you can check that, you know, through

the real estate offices, and you will see that property does not sell here, and when it does sell, it sells below market level.

CITIZEN: I don't think that's true.

MR. SCHROCK: I know I get calls from people who have asked me about buying property up in here, and I'm very honest with them. If you've got a treatment system on your home, your water quality will be fine.

I don't control the market. I mean, in my neighborhood property is not selling for what I believe it's worth either, and that's just within the last six to nine months, but you know, real estate's a funny thing that I can't control.

CITIZEN: Did I understand you correctly when you said you approached the Washington Township Sewer Authorities in Pottsville? When you-- would you mind giving us their answer to you?

MR. SCHROCK: Yeah. They were interested, but again, my reason was, I wasn't going to go out with a public document and surprise them. I needed to know if, in fact, that was still a possibility.

CITIZEN: I want to apologize for being late. I don't know if this was covered or not, but I just heard recently that all the water supply in the whole town of Quakertown and all of the wells were polluted, and I use

the water for drinking. Now, if this water's polluted, how much of this water could be still used to do your laundry, washing your car, watering the lawn, and where-- actually a smaller amount of the water is actually used for your coffee, tea, and drinking.

Is there different types of contaminants in water where water still could be used for other purposes in the home and still have a small amount for the actual human consumption, which is really the critical point. Because the third quickest death in this country is cancer, and it's directly related to-- the life expectancy is directly related to the quality of your drinking water. So has that been given consideration?

MR. SCHROCK: Our main concern here is with protecting human health. There's no question about that. I'm fully aware that there are people who use their springs and have more than one well on their property that they use for other purposes. I guess you'd have to almost look at it on a case by case basis and see where the exposure might be and where the effects might may show up.

CITIZEN: I mean that would be a small cost compared to having all your water pristine, as to just have your drinking water, and still acceptable for your other needs.

MR. SCHROCK: When I looked at the quoted 29 homes

in the study, there were 29 that posed some sort of risk base for people who drink the water, but the other scenarios, in terms of taking showers and bathing, they do have an impact. But again, you'd have to look at it on almost a case-by-case basis to see where the exposure pathway might be. We can talk a little more about it afterwards, but I'd have to sort of narrow down the scope of what we might be drinking.

CITIZEN: One question. Who has the actual power to take these millions of dollars of the taxpayers' money and do something? Who actually has the say and okay can go and right these checks?

MR. SCHROCK: The EPA does.

CITIZEN: The EPA is the people, isn't it?

MR. SCHROCK: Yes, but we're also following the laws that were passed by Congress for EPA to implement. That's the real situation. There are many places where because of the way the law was written, EPA must take an action to prevent some kind of health risk, and this is one of those cases.

CITIZEN: Have you checked any of the headwaters up there?

MR. SCHROCK: Have we checked any of the headwaters up here?

MR. KILMARTEN: We have done a round of the surface

water sediment sampling, and we have gone up river, upstream, or upgradient of this area to get an idea of what is the quality of the water before it ever reaches this area, yes. And we'll be doing more of that type of sampling this month actually.

CITIZEN: What kind of results do you get?

MR. KILMARTEN: They've just come in within the past couple of weeks, and they're really still being evaluated right now.

MR. SCHROCK: For those homeowners who had a spring on their property, we're just now sending out the results to those homeowners, and some of these springs are contaminated. There's no doubt about it.

In terms of your other questions about the headwaters, I think that was one of the reasons Bernice wanted us to do those wells at further locations to see if there might be an effect down the road that we don't see just by checking the streams. So that is still part of what we're trying to look at. If you have a specific headwater location, maybe we can talk about it and try and see if that's within our scope that we might do something of that nature.

CITIZEN: I was wondering about the Forgedale area, Forgedale.

MR. SCHROCK: I know we're doing streams samples in

Perkiomen, right?

MR. KILMARTEN: Yes, and its tributaries. And also, you know, taking these tributaries that flow into the creek, we trace them up the hill to the spring, you know, where they actually are emanating from and sampling from those points, as well. So by sampling, you know, where the spring actually emanates and then sampling from discreet places downstream from there, it allows us to determine along that stretch what the various impacts might be.

MR. SCHROCK: Okay. We're still going to be available here if there are individuals who want to ask our individuals certain questions. But I think I'll let the transcript stop and then we can-- you know, we'll still remain around for people who want to ask certain more things.

And again, thank you all for coming. If you have any written comments please send them in. We will address them in our final decision making.

(The hearing concluded at 8:41 p.m.)

CERTIFICATE

I hereby certify that the proceedings and evidence are contained fully and accurately in the notes taken by me on the hearing of the foregoing cause, and that this copy is a correct transcript of the same.

Merriann Hughes, Reporter